

CLAIM AMENDMENTS:

Please cancel Claims 23 - 29 and insert new Claims 30 - 36 as follows:

1.-29. (Canceled)

30. (New) A color image pickup device formed on a single semiconductor chip comprising:

an image pickup element, including a two-dimensional array of photodetectors each with a respective color filter, and reading means for randomly accessing said two-dimensional array, to read out image data from basic block units, each block unit comprising at least a two by two array of photodetectors;

block storage means to store image data read out from a target basic block unit of the photodetectors, and from basic block units of photodetectors neighboring the target basic block unit; and

interpolation means, which is operable upon the image data stored in said block storage means, to perform interpolation for each one of the photodetectors of the target basic block on the basis of the stored image data read out from adjacent photodetectors having color filters of the same respective colors.

31. (New) A device according to Claim 30, wherein each basic block unit is formed of 2x2 photodetectors.

32. (New) A device according to Claim 31, wherein said color filters are of color red, green, and blue, respectively, and each basic block unit is a 2x2 block of a Bayer matrix.

33. (New) A device according to Claim 31, wherein said color filters are of color Cyan, Magenta, Yellow, and Green and each basic block unit is a 2x2 block partition of the basis 4x2 pattern of a complementary color filter array.

34. (New) A device according to Claim 31, wherein said block storage means stores image data of 3x3 basis block units.

35. (New) A device according to Claim 30, further comprising signal processing means for performing at least one of color gain adjustment, low-frequency filtering, and edge enhancement.

36. (New) A device according to Claim 35, wherein said block storage means, said interpolation means, and said signal processing means are formed on one semiconductor chip together with said image pickup element.